Amendments to the Claims:

Following is a complete listing of the claims pending in the application, as amended:

1.   (Currently amended) A method for creating virtual private connections between end points in a shared storage area network (SAN), the steps comprising:

   a)—providing a virtual connection architecture and a host initiator operatively connected thereto, ~~said~~ the virtual connection architecture having a virtual connection manager and a virtual connection cache, the host initiator generating and transmitting I/O commands to ~~said~~ the virtual connection manager of the virtual connection architecture;

   b)—comparing by the virtual connection manager source and destination information from ~~said~~ the I/O commands to a predetermined list of allowable connections; and

   c)—when ~~said~~ the source and destination information matches ~~said~~ the predetermined list of allowable connections,

   determining from the virtual connection cache whether a previously established virtual connection exists between the source and destination;

   when the previously established virtual connection does not exist, creating a data connection between ~~said~~ the host initiator and a storage device, or a logical portion thereof, operatively connected to ~~said~~ the virtual connection architecture, thereby establishing a virtual private SAN; and

   when the virtual connection exists, using a virtual private SAN indicated by the previously established virtual connection.

2.   (Currently amended) The method for creating virtual private connections between end points in a shared SAN as recited in claim 1, wherein multiple virtual private SANs function independently and substantially simultaneously within ~~said~~ the shared SAN.

3.   (Original) The method for creating virtual private connections between end points in a shared SAN as recited in claim 2, wherein multiple host initiators share a common physical data channel.

4.   (Currently amended) The method for creating virtual private connections between end points in a shared SAN as recited in claim ~~2~~3, wherein ~~said~~ the multiple host initiators are provided a protected end-to-end data path.

5.   (Currently amended) The method for creating virtual private connections between end points in a shared SAN as recited in claim 2, wherein ~~said~~ the multiple, virtual private SANs support at least one SAN ~~productivity~~ connectivity product from the group: hubs, switches, gateways and routers.

6.   (Currently amended) The method for creating virtual private connections between end points in a shared SAN as recited in claim 2, wherein ~~said~~ the comparing ~~step (b)~~ comprises determining a level of access permission for said host initiator.

7.   (Currently amended) The method for creating virtual private connections between end points in a shared SAN as recited in claim 6, ~~the steps~~ further comprising~~:~~

   ~~d)~~ _storing information representative of at least one of ~~said~~ the allowable connections.

8.   (Currently amended) The method for creating virtual private connections between end points in a shared SAN as recited in claim 7, wherein ~~said~~ the storing ~~step (d)~~ comprises storing ~~said~~ the information in a virtual connection cache.

9.   (Currently amended) The method for creating virtual private connections between end points in a shared SAN as recited in claim 8, ~~the steps~~ further comprising~~:~~

   ~~e)~~ _using ~~said~~ the information stored in the virtual connection ~~information~~ cache to validate subsequent requests for access from ~~said~~ the host initiator.

10.   (Currently amended) The method for creating virtual private connections between end points in a shared SAN as recited in claim 8, wherein ~~said~~ the virtual connection architecture comprises a virtual connection manager.

11.   (Currently amended) The method for creating virtual private connections between end points in a shared SAN as recited in claim 2, wherein ~~said~~ the multiple virtual private SANs are operable within a~~a~~n existing SAN without need for additional software, middleware, drivers, or modifications to an existing operating system.

12.   (Currently amended) The method for creating virtual private connections between end points in a shared SAN as recited in claim 2, wherein ~~said~~ the virtual private connections are fully secured independently of the security of each individual host.

13.   (Currently amended) The method for creating virtual private connections between end points in a shared SAN as recited in claim 2, wherein ~~said~~ the multiple virtual private SANs operate independently of attached storage devices.

14.   (Currently amended) The method for creating virtual private connections between end points in a shared SAN as recited in claim 13, wherein ~~said~~ the attached storage devices comprise any mixture of legacy or new technology storage devices.

15.   (Currently amended) The method for creating virtual private connections between end points in a shared SAN as recited in claim 2, wherein ~~said~~ the multiple virtual private SANs operates independently of connection interfaces and provide support for at least one from the group of interfaces: Fibre Channel, SCSI, other SAN interfaces.

16.   (Currently amended) The method for creating virtual private connections between end points in a shared SAN as recited in claim 2, wherein ~~said~~ the ~~at least one~~ ~~initiator~~ host initiator comprises a host initiator interface for providing a connection to ~~said~~ the virtual connection architecture.

17.   (Currently amended) The method for creating virtual private connections between end points in a shared SAN as recited in claim 6, the steps further comprising:

d)——providing a registration engine for receiving a registration command from said the host initiator.

18.   (Currently amended) The method for creating virtual private connections between end points in a shared SAN as recited in claim 17, wherein said the registration command comprises at least one of the commands from the group: full registration, periodic registration, and de-registration commands.

19.   (Currently amended) The method for creating virtual private connections between end points in a shared SAN as recited in claim 18, wherein said the registration enginesengine comprises a host registration service operating on said the host initiator.

20.   (Currently amended) The method for creating virtual private connections between end points in a shared SAN as recited in claim 18, wherein said the registration commands comprisecommand comprises host and initiator specific information for facilitating automatic identification and configuration of said the host and interface.

21.   (Currently amended) The method for creating virtual private connections between end points in a shared SAN as recited in claim 17, the steps further comprising:

e)——periodically monitoring the a health status of said the host initiator.

22.   (Currently amended) The method for creating virtual private connections between end points in a shared SAN as recited in claim 21, further comprising the issuance of a periodic registration command.

23.   (Currently amended) The method for creating virtual private connections between end points in a shared SAN as recited in claim 8, the steps further comprising:

e)————automatically capturing an existing SAN configuration and using said the
captured configuration information to automatically establish persistent
access controls.

24.   (New) An apparatus for creating virtual private connections between end
points in a shared storage area network comprising:

      means for establishing a virtual connection between a source and a destination,
          wherein the means for establishing the virtual connection includes a virtual
          connection manager and a virtual connection cache;

      means for receiving I/O commands containing source and destination
          information;

      means for comparing the source and destination information in the I/O
          commands to a predetermined list of allowable data connections;

      means for creating a virtual private storage area network connection between the
          source and destination when the data connection is allowable but does not
          exist; and

      means for using the virtual private storage area network.

25.   (New) The apparatus of claim 24 wherein when a virtual private storage
area network connection is created, storing an indication of the connection in the virtual
connection cache.

26.   (New) The apparatus of claim 24 wherein the means for creating a virtual
private storage area network connection includes means for determining whether the
data connection exists by reading an indication from the virtual connection cache.